

ABSTRACT OF THE DISCLOSURE

A mobile internet protocol regional paging network
10 includes a paging foreign agent for handling a
regional registration of a mobile node visiting a paging
5 area, which includes internet protocol subnetworks. In
operation, the mobile node periodically can provide an
idle mode request to the paging foreign agent to enter an
idle mode so as to deactivate one or more components for
energy-saving purposes and reduce active communication
10 with the mobile internet protocol regional paging
network. The invention provides a small and link-layer
independent extension to Mobile Internet Protocol with
Regional Registrations to support power-constrained
operation in the mobile nodes and to reduce routing state
15 information in the visited domain. The extension allows
a Mobile Node to enter a power saving Idle Mode during
which its location is known with the coarse accuracy
defined by a Paging Area. The mobile node and the
visited domain may optionally agree on time slots used
20 for Agent Advertisements and paging. The mobile node 14
may include a mobile phone, a pager, or any
telecommunications device capable of wireless
communicating, including communication over the internet.